

Our Reference: 200308817-1

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellants:	John R. Moffatt, et al.
Serial Number:	10/672,486
Filing Date:	September 25, 2003
Confirmation No.:	8250
Examiner/Group Art Unit:	Betelhem Shewareged/1785
Title:	PROTECTION OF PRINTED IMAGES FROM GASFADE

REPLY BRIEF

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Commissioner for Patents
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Sir:

Please enter the following Reply Brief in response to the Examiner's answer dated April 23, 2010.

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I. STATUS OF CLAIMS

Claims 3, 4, 21-24, 28-30, and 33 are the claims on appeal.

Claims 1, 2, 5-7, 11, 15, 18-20, 25-27, 31, and 32 were cancelled.

Claims 8-10, 12-14, 16, and 17 were withdrawn.

Claims 3, 4, 21-24, 28-30, and 33 are rejected.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1) Whether claims 3, 21, 22, 24, and 33 are anticipated under 35 U.S.C. § 102(b) by Schleicher, et al. (U.S. Patent No. 5,837,036, referred to herein as "Schleicher")

2) Whether claims 3, 4, 21-24, 28-30, and 33 are unpatentable under 35 U.S.C. § 103(a) as being obvious in view of Tsuchida, et al. (U.S. Patent Publication No. 2002/0071941, referred to herein as "Tsuchida") and Schleicher.

3) Whether claims 4, 21-24, 26, 28-30, and 32 are unpatentable under 35 U.S.C. § 103(a) as being obvious in view of Schleicher.

III. ARGUMENTS

The arguments presented hereinbelow address the Examiner's arguments presented in the Answer dated April 23, 2010. It is submitted, however, that the absence of a reply to a specific rejection, issue, comment, or argument in the Answer does not signify agreement with or concession of that rejection, issue, comment, or argument. Finally, nothing in the following arguments of this reply brief should be construed as an intent to concede any issue with regard to any claim, except if specifically stated below.

A. Rejection of claims 3, 21, 22, 24, 26, and 33 under 35 U.S.C. § 102(b) in view of Schleicher

Appellants reiterate all of the arguments presented in the Appeal Brief dated March 12, 2010.

Further, in the Answer dated April 23, 2010 (referred to hereinafter as "the Answer"), the Examiner asserts that the Schleicher disclosure is not limited to a filter; and that the reference also teaches the use of poly(phenylene sulfide) as a coating applied onto a support material. The Examiner cites column 3, lines 8-49 to support her assertions.

Appellants respectfully disagree with the Examiner's assertion, and submit that the Schleicher reference is directed to a process for **removing** organic substances and ozone from gases (see the title and abstract of Schleicher). Appellants realize that a filter is disclosed (and claimed) in Schleicher as a device that performs the removal process, and that it may be possible to apply the process using another device. It is submitted, however, that one skilled in the art would *not* conclude that the Schleicher process may be accomplished via the print medium defined in Appellants' claims 3, 21, and 33, at least in part because the claimed print medium does *not* bind ozone to an ozone-binding polymer as disclosed by Schleicher. Appellants' application as filed states,

The print medium may include an inhibitor that *reacts* with at least one atmospheric pollutant, such as O₂, O₃, NO_x, SO₂, and other pollutants. By reacting with the inhibitor, the atmospheric pollutant may be prevented from reacting with, and degrading, a colorant of an inkjet ink deposited on the print medium... (Emphasis added; see paragraph [0014] of Appellants' application as filed.)

... After reacting with the atmospheric pollutant, a fully or partially *oxidized* species of the inhibitor is formed. (Emphasis added; see paragraph [0015] of Appellants' application as filed.)

In sharp contrast, Schleicher discloses that the ozone contacts and *binds* to an ozone-binding polymer of the filter. Thus, the ozone does *not* undergo a chemical change (via a reaction); it merely binds to the ozone-binding polymer so that the remaining gases pass through the filter without the ozone. As such, it would *not* be implicit or otherwise inherent to accomplish the removal process disclosed in Schleicher using Appellants' claimed print medium.

The Examiner further asserts, in the Answer, that a "print medium having increased resistance to gasfade" (as recited in claims 3, 21, and 33) is an intended use for the claimed product, and that this use does not differentiate the claimed article from the prior art. Appellants respectfully disagree with the Examiner at least in part because each and every element set forth in the claim must be found, either expressly or inherently, in the Schleicher reference in order for the reference to anticipate the claims (see MPEP § 2131.01; *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). Furthermore, "[t]he **identical invention** must be shown in as complete detail as is contained in the patent claim" (emphasis added; *Richardson v. Suzuki Motor Co.* 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) citing *Jamesbury Corp. v. Litton Industrial Products, Inc.*, 756 F.2d 1556, 1560, 225 USPQ 253, 256 (Fed.Cir.1985), which was later affirmed by *In re Robert Skvorecz*, 580 F.3d 1262 (Fed. Cir. 2009)). Appellants further point out that the preamble of the claim is considered to be a structural limitation if it is "necessary to give life, meaning, and vitality" to the claim (see MPEP § 2111.02 citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir.

1999)). Since the pending claims explicitly recite, in some form, that the melt-coated topmost, discrete inhibitor layer is on at least one surface **of the print medium**, it is submitted that the print medium is clearly a structural limitation that gives life, meaning, and vitality to the claims.

In view of the precedent cited above, all of the elements of claims 3, 21, and 33 must be shown in Schleicher in order for the reference to properly anticipate the claim. At least because Schleicher *fails* to disclose or suggest **a print medium**, it is submitted that Schleicher is *not* a proper anticipation reference.

In the Answer, the Examiner submits that the 35 U.S.C. § 102(b) rejection of claims 3, 21, and 33 are based upon the embodiment of Schleicher related to applying the poly(phenylene sulfide) (PPS) as a coating. The Examiner turns to the general definition of the term "coat", and submits that a "coat" is a *layer* of one substance covering another. Appellants submit, however, that the Examiner is disregarding the Declaration of Matthew Thornberry filed June 3, 2009, which explicitly stated that "Schleicher, in column 3, lines 30-38, discusses applying a solution of poly(phenylene sulfide)(PPS) or poly(2,6-dimethylphenylene oxide) to a support material. Such a solution would, to a substantial extent, penetrate into the support material, especially if such support material were formed from paper or other materials commonly used for an inkjet print medium." Thus, even if the PPS solution of Schleicher forms a coat on the support material (which, according to the Examiner's definition above, is a layer covering the support material), the PPS solution also penetrates into the support material **to a substantial extent**. This is in sharp contrast to the minute amount of penetration (if any at all) of the inhibitor into Appellants' claimed print medium (as also explicitly described in the Declaration of Matthew Thornberry). As disclosed in Appellants' specification in paragraph [0019], and further clarified by the Declaration, a discrete layer of the inhibitor is formed even though a minute amount of the inhibitor may penetrate into the print medium. Appellants do not contest the fact that some of the inhibitor may penetrate into the print medium. However, when read in conjunction with the Declaration, it is submitted that a skilled artisan would see the *difference* between the penetration of the PPS solution of Schleicher into the support material as

opposed to the penetration (if any at all) of the inhibitor into the print medium of Appellants' claims. Thus, Schleicher does *not* disclose forming a discrete layer.

In the Answer, the Examiner also argues that the claimed types of the print medium (i.e., plain paper, porous print medium, or swellable print medium) include a broad range of mediums, and is therefore non-limiting. At the outset, Appellants are not aware of any rule that states that a structural limitation that is expressly recited in a claim may be considered to be non-limiting because the limitation is construed as being broad.

Further, Appellants claims are to be given their broadest reasonable interpretation that is *consistent with the specification* (see MPEP § 2111). Appellants submit that claims 3, 21, and 33, when interpreted in light of the specification, are directed to a print medium upon which an inkjet ink may be printed (see, e.g., paragraph [0002] of Appellants' application as filed). Appellants submit that the support materials (such as the ceramic masses) disclosed in Schleicher are not mediums adapted to have an inkjet ink printed thereon. Thus, Schleicher does *not* disclose the print mediums recited in claims 3, 21, and 33 regardless of how broadly the print mediums are interpreted.

For all of the reasons stated above, as well as in the Appeal Brief dated March 12, 2010, Appellants submit that Schleicher *fails* to disclose all of the elements of claims 3, 21, and 33. As such, it is submitted that Schleicher *fails* to anticipate claims 3, 21, and 33, and those claims depending therefrom.

B. Rejection of claims 3, 4, 21-24, 26, 28-30, 32, and 33 under 35 U.S.C. § 103(a) over Tsuchida and Schleicher

Appellants herein reiterate all of the arguments set forth in the Appeal Brief dated March 12, 2010.

Additionally, in the Answer, the Examiner argues that both Tsuchida and Schleicher teach coating a sulfur-containing compound, and that the sulfur "coat" is the same as Appellants' claimed discrete topmost inhibitor layer. Appellants disagree with the Examiner for the reasoning stated above in conjunction with the 35 U.S.C. § 102(b)

rejection in view of the Schleicher reference. To briefly summarize this reasoning, a PPS solution would penetrate into the support material **to a substantial extent**, taking the “coat” out of the realm of discreteness when such is described in terms of a layer formed on the support material.

As such, for the reasons stated above, as well as in the Appeal Brief dated March 12, 2010, Appellants submit that the combination of Tsuchida and Schleicher *fails* to disclose all of the elements of Appellants’ pending claims, thereby failing to render the claims obvious.

C. Rejection of claims 4, 21-24, 26, 28-30, and 32 under 35 U.S.C. § 103(a) over Schleicher

Appellants herein reiterate all of the arguments set forth above, as well as all of the arguments set forth in the Appeal Brief dated March 12, 2010.

IV. CONCLUSION

The Appellants respectfully submit that claims 3, 4, 21-24, 28-30, and 33 as currently pending fully satisfy the requirements of 35 U.S.C. §§ 102, 103 and 112. Accordingly, Appellants respectfully request that the Board of Patent Appeals and Interferences find for the Appellants and reverse the rejection of each of Appellants' claims 3, 21, 22, 24, and 33 under U.S.C. § 102(b) as being anticipated by Schleicher; claims 3, 4, 21-24, 28-30, and 33 under 35 U.S.C. § 103(a) as being unpatentable over Tsuchida and Schleicher; and claims 4, 21-24, 26, 28-30, and 32 under 35 U.S.C. § 103(a) as being unpatentable over Schleicher. In view of the foregoing, favorable consideration and passage to issue of the present application is respectfully requested.

Respectfully submitted,

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